# Author index

Albersheim, P. 147 Aragón, J.J. 209

Avila, D. 97

Barili, P.L. 17 Belot, F. 79

Berti, G. 17 Boros, S. 159

Bozó, É. 159 Brillouet, J.-M. 183

Brisson, J.-R. 43

Caldwell, E.E.O. 87 Cañada, F.J. 209

Catelani, G. 17

Cescutti, P. 105

Cheng, L. 67 Cox, A.D. 43, 59

D'Andrea, F. 17

Darvill, A.G. 147

Davey, S.N. 117

Di Bussolo, V. 17 Doco, T. 183

Domon, B. 175

Dubreucq, G. 175

Fan. H.-N. 233

Fernández-Mayoralas, A. 209

Fournet, B. 175

Fukunaga, K. 225

Gács-Baitz, E. 159

Garozzo, D. 105

Glushka, J. 147

Grzeszczyk, B. I

Guo, Z.-W. 233

Hansen, K.P. 87 Holst, O. 1

Hui, Y.-Z. 233

Jacquinet, J.-C. 79

Kindel, P.K. 67

Kroon, J. 125

Kühn, G. 199

Kuszmann, J. 159

Lakin, M.T. 125

Leigh, D.A. 117

León de Pinto, G. 97

Linhardt, R.J. 87

Liu, M.-Z. 233

López, R. 209 Lorin, C. 125

Maeba, I. 71

Martín-Lomas, M. 209

Martínez, M. 97

Mendoza, J.A. 97 Mischnick, P. 199

Mouhous-Riou, N. 125

Müthing, J. 217

Nadkarni, V.D. 87

Nakao, K. 225

Nishiyama, Y. 71

Ocando, E. 97

O'Neill, M.A. 183

Pellerin, P. 183

Pérez, S. 125

Perry, M.B. 43, 59

Piekarska-Bartoszewicz, B. 137

Radigina, L.A. 33

Ridley, B.L. 147

Rivas, C. 97

Rizzo, R. 105

Rollin, P. 125

# Author index

Schubert, R.L. 87	Vidal, S. 183
Shimizu, T. 225	Villanueva, D. 209
Smart, J.P. 117	
Spiro, M.D. 147	
Sugimura, Y. 225	Wakimura, M. 71
	Wawer, I. 137
Tabata, T. 71	Weiler, J.M. 87
Temeriusz, A. 137	Williams, P. 183
Tetler, L.W. 117	
Tikhonov, V.E. 33	
Toida, T. 87	Yamskov, Y.A. 33
Truscello, A.M. 117	

Van Gorp, C.L. 87	Zamojski, A.
Varma, V. 43	Zhang, Z. 225

# Subject index

#### Aceric acid

Structural characterization of red wine rhamnogalacturonan II 183

#### Aglycon transfer

Intermolecular aglycon transfer of a phenyl 1thiogalactosaminide derivative under trichloroacetimidate glycosylation conditions 79

#### Allyl 3,4-di-O-acetyl-β-D-ribofuranoside

One-step glycosylation and selective deprotection of peracetylated monosaccharides for facile syntheses of allyl glycosides with a free C-2 hydroxyl group 233

#### Allyl 3,4-di-O-acetyl-β-D-xylopyranoside

One-step glycosylation and selective deprotection of peracetylated monosaccharides for facile syntheses of allyl glycosides with a free C-2 hydroxyl group 233

#### Allyl 3,4,6-tri-O-acetyl-β-D-galactopyranoside

One-step glycosylation and selective deprotection of peracetylated monosaccharides for facile syntheses of allyl glycosides with a free C-2 hydroxyl group 233

#### Allyl 3,4,6-tri-O-acetyl-β-D-glucopyranoside

One-step glycosylation and selective deprotection of peracetylated monosaccharides for facile syntheses of allyl glycosides with a free C-2 hydroxyl group 233

#### Anacardiaceae

Structural study of the polysaccharide isolated from Spondias purpurea gum exudate 97

#### O-Antigen core

Structural analysis of the O-antigen-core region of the lipopolysaccharide from *Vibrio cholerae* O139 59

#### Apiitol

Reexamination of the acetylation of apiitol in the determination of apiose 67

#### Apiose

Reexamination of the acetylation of apiitol in the determination of apiose 67

#### Bacterial sugars

The synthesis of five L-glycero-D-mannoheptose monophosphates I

#### Borate di-ester

Structural characterization of red wine rhamnogalacturonan II 183

#### Chitin

Metal-chelating chitin derivatives via reaction of chitosan with nitrilotriacetic acid 33

#### Chitosan

Metal-chelating chitin derivatives via reaction of chitosan with nitrilotriacetic acid 33

#### Chondroitin sulfate

Preparation and biological activity of Nsulfonated chondroitin and dermatan sulfate derivatives 87

# 13C NMR spectroscopy

Structural study of the polysaccharide isolated from Spondias purpurea gum exudate 97

#### Copper ions

Metal-chelating chitin derivatives via reaction of chitosan with nitrilotriacetic acid 33

# Cross-linking

Metal-chelating chitin derivatives via reaction of chitosan with nitrilotriacetic acid 33

# Cyclodextrins

Study of the inclusion complexes of aromatic molecules with cyclodextrins using ionspray mass spectrometry 105

#### α- and β-Cyclodextrins

Fast atom bombardment mass spectrometry as a tool for the rapid determination of enantioselective binding of methylated cyclodextrins 117

#### 5-Deazapteridine

Synthesis of pyrido[2,3-d]pyrimidine (5-deazapteridine) C-nucleosides from a glycosyl enaminone 71

#### 6-Deoxy-5-thio-D-glucose

Synthesis of 6-deoxy-5-thio-D-glucose 159

# 2-Deoxy-2-trichloroacetamido-D-galactose

Intermolecular aglycon transfer of a phenyl 1thiogalactosaminide derivative under trichloroacetimidate glycosylation conditions 79

#### Derivatization

Synthesis and characterization of tyramine-derivatized (1 → 4)-linked α-D-oligogalacturonides 147

#### Dermatan sulfate

Preparation and biological activity of Nsulfonated chondroitin and dermatan sulfate derivatives 87

#### Dimer

Structural characterization of red wine rhamnogalacturonan II 183

# Dioxolane reductive opening

The conversion of D-galactopyranosides into 2amino-2-deoxy-D-talopyranosyl derivatives: Some new data 17

#### E. coli β-D-galactosidase

A direct enzymatic synthesis of β-D-galactopyranosyl-D-xylopyranosides and their use to evaluate rat intestinal lactase activity in vivo

#### Enzymatic glycosylation

A direct enzymatic synthesis of β-D-galactopyranosyl-D-xylopyranosides and their use to evaluate rat intestinal lactase activity in vivo 209

#### Exopolysaccharide

Structure determination of a novel uronic acid residue isolated from the exopolysaccharide produced by a bacterium originating from deep sea hydrothermal vents 175

Fast atom bombardment mass spectrometry as a tool for the rapid determination of enantioselective binding of methylated cyclodextrins 117

Model studies on methyl amyloses: correlation between reaction conditions and primary structure 199

#### Galactolipids

Synthesis of glycolipids: dialkyl N-[N-(4lactonamidobutyl)succinamoyl]-L-glutamates 225

#### β-D-Galactopyranosyl-D-xylopyranosides

A direct enzymatic synthesis of β-D-galactopyranosyl-D-xylopyranosides and their use to evaluate rat intestinal lactase activity in vivo

#### Gangliosides

Influenza A and Sendai viruses preferentially bind to fucosylated gangliosides with linear poly-N-acetyllactosaminyl chains from human granulocytes 217

#### GLC

Reexamination of the acetylation of apiitol in the determination of apiose 67

#### Glycolipids

Synthesis of glycolipids: dialkyl N-[N-(4lactonamidobutyl)succinamoyl]-L-glutamates 225

## Glycosaminoglycan

Preparation and biological activity of Nsulfonated chondroitin and dermatan sulfate derivatives 87

#### Glycosphingolipids

Influenza A and Sendai viruses preferentially bind to fucosylated gangliosides with linear poly-N-acetyllactosaminyl chains from human granulocytes 217

### Glycosyl enaminone

Synthesis of pyrido[2,3-d]pyrimidine (5deazapteridine) C-nucleosides from a glycosyl enaminone 71

#### Grape

Structural characterization of red wine rhamnogalacturonan II 183

#### Gum exudate

Structural study of the polysaccharide isolated from Spondias purpurea gum exudate 97

# H. 13 C. 15 N NMR

13C, 15N CP MAS and high resolution multinuclear NMR study of methyl 3,4,6-tri-O-acetyl-2-(3'-arylureido)-2-deoxy-β-D-glucopyranosides

#### L-glycero-D-manno-Heptose monophosphate

The synthesis of five L-glycero-D-mannoheptose monophosphates 1

## Heptose synthesis

The synthesis of five L-glycero-D-mannoheptose monophosphates 1

#### Homogalacturonan

Structural characterization of red wine rhamnogalacturonan II 183

# Hydrothermal vent

Structure determination of a novel uronic acid residue isolated from the exopolysaccharide produced by a bacterium originating from deep sea hydrothermal vents 175

# Inclusion complexes

Study of the inclusion complexes of aromatic molecules with cyclodextrins using ionspray mass spectrometry 105

#### Intestinal lactase evaluation

A direct enzymatic synthesis of  $\beta$ -D-galactopyranosyl-D-xylopyranosides and their use to evaluate rat intestinal lactase activity in vivo 209

#### lonspray mass spectrometry

Study of the inclusion complexes of aromatic molecules with cyclodextrins using ionspray mass spectrometry 105

## Lipids for modified enzyme

Synthesis of glycolipids: dialkyl N-[N-(4-lactonamidobutyl)succinamoyl]-L-glutamates

#### Lipopolysaccharide

Structural analysis of the lipopolysaccharide from Vibrio cholerae O139 43 Structural analysis of the O-antigen-core region

Structural analysis of the O-antigen-core region of the lipopolysaccharide from Vibrio cholerae O139 59

#### MALDI-TOF

Model studies on methyl amyloses: correlation between reaction conditions and primary structure 199

# Methyl amyloses

Model studies on methyl amyloses; correlation between reaction conditions and primary structure 199

# Molecular mechanics conformation

Structural analysis of 6-S-(benzoxazol-2-yl)-6-deoxy-1,2:3,4-di-O-isopropylidene-6-thio-α-D-galactopyranose by means of X-ray diffraction, high resolution NMR spectroscopy, and molecular modelling 125

#### MS-MS

Fast atom bombardment mass spectrometry as a tool for the rapid determination of enantioselective binding of methylated cyclodextrins 117

# Nitrilotriacetic acid

Metal-chelating chitin derivatives via reaction of chitosan with nitrilotriacetic acid 33

#### NMR

Structural analysis of 6-S-(benzoxazol-2-yl)-6-deoxy-1,2:3,4-di-O-isopropylidene-6-thio-α-D-galactopyranose by means of X-ray diffraction, high resolution NMR spectroscopy, and molecular modelling 125

#### Non-chair conformations

The conversion of D-galactopyranosides into 2amino-2-deoxy-D-talopyranosyl derivatives: Some new data 17

#### N-sulfonation

Preparation and biological activity of Nsulfonated chondroitin and dermatan sulfate derivatives 87

#### C-Nucleosides

Synthesis of pyrido[2,3-d]pyrimidine (5-deazapteridine) C-nucleosides from a glycosyl enaminone 71

#### Oligogalacturonides

Synthesis and characterization of tyramine-derivatized (1  $\rightarrow$  4)-linked  $\alpha$ -D-oligogalacturonides 147

### Oligosaccharide

Synthesis of glycolipids: dialkyl N-{N-{4lactonamidobutyl}succinamoyl}-L-glutamates 225

#### Pectin

Structural characterization of red wine rhamnogalacturonan II 183

# Peptide

Synthesis of glycolipids: dialkyl N-[N-(4lactonamidobutyl)succinamoyl]-L-glutamates 225

### Per-meltylated cyclodextrins

Fast atom bombardment mass spectrometry as a tool for the rapid determination of enantioselective binding of methylated cyclodextrins 117

#### Permethylation

Model studies on methyl amyloses: correlation between reaction conditions and primary structure 199

#### Polymer chains

Model studies on methyl amyloses: correlation between reaction conditions and primary structure 199

# Pyrido[2,3-d]pyrimidine

Synthesis of pyrido[2,3-d]pyrimidine (5-deazapteridine) C-nucleosides from a glycosyl enaminone 71

### Reaction mechanism: transannular participation of the sulfur atom

Synthesis of 6-deoxy-5-thio-D-glucose 159

# Rearrangement reactions of mesylated methyl 5thio-α-D-glucopyranoside

Synthesis of 6-deoxy-5-thio-D-glucose 159

#### Receptor function

Influenza A and Sendai viruses preferentially bind to fucosylated gangliosides with linear poly-N-acetyllactosaminyl chains from human granulocytes 217

#### Reduction of 5,6-thiirane rings with LiAlH<sub>4</sub> Synthesis of 6-deoxy-5-thio-p-glucose 159

#### Rhamnogalacturonan II

Structural characterization of red wine rhamnogalacturonan II 183

# Sialyl Lewis<sup>1</sup>

Influenza A and Sendai viruses preferentially bind to fucosylated gangliosides with linear poly-N-acetyllactosaminyl chains from human granulocytes 217

#### Solid state NMR

13C, 15N CP MAS and high resolution multinuclear NMR study of methyl 3,4,6-tri-O-acetyl-2-(3'-arylureido)-2-deoxy-β-D-glucopyranosides 137

#### Spondias purpurea

Structural study of the polysaccharide isolated from Spondias purpurea gum exudate 97

#### Structural analysis

Structural analysis of the lipopolysaccharide from Vibrio cholerae O139 43

#### Structural characterization

Synthesis and characterization of tyramine-derivatized (1 → 4)-linked α-D-oligogalacturonides 147

#### Structural study

Structural study of the polysaccharide isolated from Spondias purpurea gum exudate 97

#### Sulfonamido derivatives

Preparation and biological activity of Nsulfonated chondroitin and dermatan sulfate derivatives 87

#### Synthesis

Synthesis of pyrido[2,3-d]pyrimidine (5deazapteridine) C-nucleosides from a glycosyl enaminone 71

#### Talosamine

The conversion of D-galactopyranosides into 2amino-2-deoxy-D-talopyranosyl derivatives: Some new data 17

#### Thioglycoside

Intermolecular aglycon transfer of a phenyl 1thiogalactosaminide derivative under trichloroacetimidate glycosylation conditions 79

#### Thiosugars

Structural analysis of 6-S-(benzoxazol-2-yl)-6deoxy-1,2:3,4-di-O-isopropylidene-6-thio-a-Dgalactopyranose by means of X-ray diffraction, high resolution NMR spectroscopy, and molecular modelling 125

#### Trichloroacetimidate glycosylation

Intermolecular aglycon transfer of a phenyl 1-

thiogalactosaminide derivative under trichloroacetimidate glycosylation conditions 79

#### Tyramine

Synthesis and characterization of tyramine-derivatized (1 → 4)-linked α-D-oligogalacturonides 147

#### Ulose oximes

The conversion of D-galactopyranosides into 2amino-2-deoxy-D-talopyranosyl derivatives: Some new data 17

Ureido sugars

13 C, 15 N CP MAS and high resolution multinuclear NMR study of methyl 3,4,6-tri-O-acetyl-2-(3'-arylureido)-2-deoxy-β-D-glucopyranosides 137

#### Uronic acid

Structure determination of a novel uronic acid residue isolated from the exopolysaccharide produced by a bacterium originating from deep sea hydrothermal vents 175 Structural characterization of red wine rhamno-

# Vibrio cholerae

galacturonan II 183

Structural analysis of the lipopolysaccharide from Vibrio cholerae O139 43

Structural analysis of the O-antigen-core region of the lipopolysaccharide from Vibrio cholerae 0139 59

## VIM-2

Influenza A and Sendai viruses preferentially bind to fucosylated gangliosides with linear poly-N-acetyllactosaminyl chains from human granulocytes 217

#### Virus binding

Influenza A and Sendai viruses preferentially bind to fucosylated gangliosides with linear poly-N-acetyllactosaminyl chains from human granulocytes 217

Structural characterization of red wine rhamnogalacturonan II 183

#### X-Ray diffraction

Structural analysis of 6-S-(benzoxazol-2-yl)-6deoxy-1,2:3,4-di-O-isopropylidene-6-thio-α-Dgalactopyranose by means of X-ray diffraction, high resolution NMR spectroscopy, and molecular modelling 125

Reexamination of the acetylation of apiitol in the determination of apiose 67

